# DS100 User Manual

Version: 1.0

Date: Feb. 2011

**Introduction:**

This document mainly introduces the windows and operations of DS100 dual FP reader device.

**About this manual**

- Not all the devices have the function with ★. The real product prevails.
- The photograph in this manual may be different from that of the real product. The real product prevails.

# Table of Contents

**1. Operating Instruction.....1**
1.1 Abbreviated Operating Procedures..... 1
1.2 How to Press the Fingerprint..... 2
1.3 About Attendance..... 3
1.3.1 Select Attendance State..... 3
1.3.2 Identity Verification..... 4
1.4 Connection with Computer..... 9
1.5 Main Menu..... 10
**2. User Management.....12**
2.1 Add a New User..... 12
2.2 User Management..... 15
2.2.1 Search User..... 16
2.2.2 Query Attendance Record..... 17
2.2.3 Edit User..... 18
2.2.4 Delete User..... 19
2.2.5 Add User..... 20
2.3 SMS..... 20
2.3.1 Set SMS..... 21
2.3.2 Employee Check SMS..... 22
2.4 Card Management ★..... 25
2.4.1 Enroll Card..... 25
2.4.2 Enroll Fingerprint Card..... 26
2.4.3 Clear Card Information..... 28
2.4.4 Copy Card Information..... 29
2.4.5 Card Setting..... 29
**3. Communication Settings.....31**
3.1 Network Option..... 31
3.2 Serial Port Option..... 32

3.3 Connection Option ..... 33
3.4 Wireless Option ★ ..... 34
3.5 Wireless Network ★ ..... 37
**4. System Option ..... 38**
4.1 System Parameter ..... 38
4.2 Data Management ..... 40
4.3 Upgrade Firmware ..... 41
4.4 Keyboard Definition ..... 41
4.4.1 Set Shortcut ..... 42
4.4.2 Use Shortcut ..... 43
4.5 Interface Option ..... 44
4.6 Reset ..... 45
4.7 Bell Option ..... 46
4.8 Other Options ..... 47
**5. Time Date ..... 49**
5.1 Time Date Option ..... 49
5.2 DLST ..... 49
**6. U Disk Management ..... 51**
6.1 Download by U-disk ..... 51
6.2 Upload by U-disk ..... 52
6.3 Download to SD Card ..... 53
6.4 Upload by SD Card ..... 54
**7. Auto Test ..... 56**
7.1 TFT Test ..... 56
7.2 Audio Test ..... 56
7.3 Keyboard Test ..... 56
7.4 Sensor Test ..... 57
7.5 Real-time Clock ..... 57
**8. Query Record ..... 58**

**9. System Information ..... 60**

9.1 Record Capacity ..... 60

9.2 Device Information ..... 60

**10. Appendix ..... 61**

10.1 Keyboard ..... 61

10.2 USB ..... 62

10.3 Time Ring ..... 62

10.4 T9 Input Method ..... 63

10.5 Quick Query of Attendance Record ..... 65

10.6 Propaganda Picture Upload Rules ..... 65

10.7 Short Message Management ..... 66

10.8 Mifare Card ★ ..... 67

10.9 9 Digit Code ..... 68

10.10 Daylight Saving Time ..... 68

10.11 WiFi Software Using Instruction ★ ..... 69

10.12 Photo ID Function ..... 71

10.13 Backup Battery ..... 72

10.14 About the Human Rights Privacy Statement ..... 73

10.15 Environmental Protection ..... 75

# 1. Operating Instruction

## 1.1 Abbreviated Operating Procedures

**Step 1**: Install the device and power it up.

**Step 2**: Enroll users by registering his/her fingerprints, passwords or card. Assign users' security privileges directly on the device.

**Step 3**: After enrolling users, verify that his/her enrolled fingerprint, passwords or card is valid.

**Step 4**: Configure the device communication settings. Then download the users' newly enrolled information from the device onto the Attendance Management Software on the computer. Data can be transmitted via TCP/IP or USB client or by using a USB flash drive or a SD memory card.

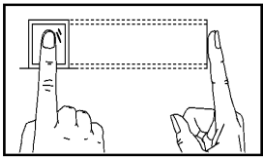
**Step 5**: Verify the device displays the correct day and time. Then start to attendance.

**Step 6**: Download attendance records to the Attendance Management and stat them at the end of the month.

## 1.2 How to Press the Fingerprint

Enroll fingerprint by pressing index finger, middle finger or ring finger (thumb and little finger are clumsy).

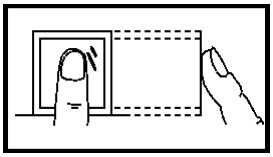
**1) Proper press:**



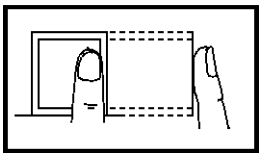
**Make finger center pressed on the sensor window**

**2) Improper press:**

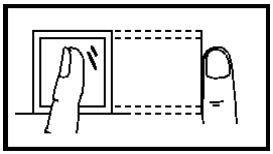
**Upright**



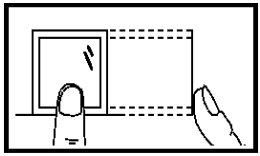
**Too lean**



**Slant**



**Too downward**



Please adopt the correct way to place the finger to avoid improper operation led to the identification performance degradation.

## 1.3 About Attendance

When the device is in standby status, only after successful fingerprint or password verification, can user save attendance record on the device.

Standby status is as shown below:

The picture displayed in standby status can be uploaded by user (please refer to 6 U Disk Management). It can also be time display (refer to 4.5 Interface Option)

### 1.3.1 Select Attendance State

**Mode 1:**

When the device is in standby status, press state key on the device to modify attendance state, and the state information will be displayed on the screen. The current selected state is displayed in orange. Refer to 4.4 Keyboard Definition for default state key definition.

**Mode 2:**

Various states can be set by user. Only the corresponding states come out on the left bottom corner.

### 1.3.2 Identity Verification

After successful user verification, the device will return to the initial interface. For dual FP reader device, the attendance result displays on either side of screen (left or right side of screen, with the same size). The keyboard input displays on any side of the screen according to the user's requirements. And the fingerprint, PIN and card verification displays on the same side with keyboard input (*the following demonstration is using the left side of screen to display). Two of the FP reader can be used by the same time.

**1. Fingerprint Matching**

**(1) 1:N fingerprint matching**

Verify the fingerprint pressed on the reader at present with all fingerprint data in the fingerprint reader. Two of the FP reader can be used by the same time. And the attendance result will displays on left screen.

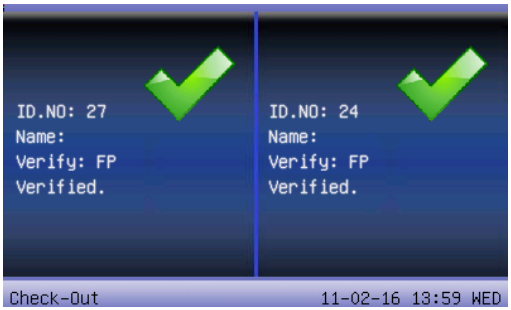
**Step 1:** Press fingerprint properly on the reader.

**Step 2:** If the device says 'Thank you", the verification is complete.

Use the left FP reader:

Use the right FP reader:

Both FP reader in used:




**(2) 1:1 fingerprint match (User ID + fingerprint)**

Verify the fingerprint pressed on the reader at present with the fingerprint related with user number. Use this method when it is difficult to identify user's fingerprint.

**Step 1:** Input User ID of employee to be verified on the initial interface.

**Step 2:** Press fingerprint properly on the reader.

**Step 3:** If the device says ‘Thank you”, the verification is complete.

If you press the finger on the left FP reader, it is 1:1 fingerprint verification, and the verified result displays on the left side of the screen.

If you press the finger on the right FP reader, it is the 1:N fingerprint verification (for any user to verify).

If the device says “Please try again”, return to step 2 for second operation. Employee can try another 2 times by default. The repeated times can be set in 4.5 Interface Option. If it fails after 2 times, return to step 1 directly.

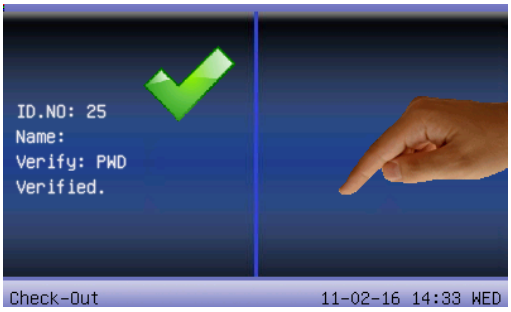
**2. Password Matching**

**Step 1:** Input User ID of employee to be verified on the initial interface. Then press **OK.**

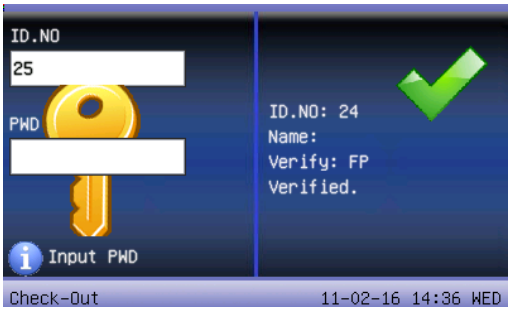
**Step 2:** If it displays Error ID. NO, it means that there is no such number. If it prompt to press finger, that the employee doesn’t enroll password.

**Step3:** Input password and press OK.

If you input the right user password, it is the password verification, the result will display on the left side of the screen.




If you press the finger on either FP reader, it is the 1:N fingerprint verification and the result will display on the right side of the screen (for any user to verify).

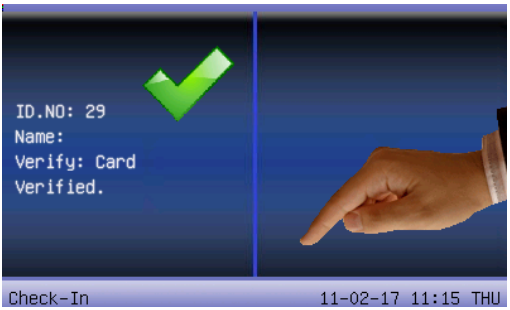



When the device displays “password error”, you need to input the password again. Employee can try another 2 times by default. The repeated times can be set in 4.5 Interface Option. If it fails after 2 times, return step 1 directly.

**3. Card Matching ★**

**Step 1:** Wave the card near to the card sensor area, after the device find the card, removes the card.

**Step 2:** When the device says "Thank you", the certification completed.




The card verification and FP verification can be used by the same time. The verification result displays as the following figure.

**Step 3:** If the card has not registered yet, it will prompt that the card is not registered.

## 1.4 Connection with Computer

The device only records attendance time. After that the data can be processed by software on computer. Therefore, it is necessary for the device to connect with a computer, to download the attendance record or upload the user data and so on.

The following are some connection method:

**1. Ethernet:**

**Through hub:** Use the net cable to connect the device and computer to the same network.

**Direct connection:** Use the cross cable to connect the device and the computer directly).

Set device: Enter **Menu** -> **Option** -> **Communication Option** to set the following items:

**IP address:** Default IP as 192.168.1.201. You can modify it if it is necessary.

**Subnet mask:** Default subnet mask as 255.255.255.0. You can modify it if it is necessary.

**Gateway address:** Default gateway address0.0.0.0. You can modify it if it is necessary.

**Network speed:** There are three options: ATUO, 10M, and 100M.

**Connection password:** It can be set or not set. If it is set, input corresponding numerical value on connection interface of computer software.

**2. USB ★**

Set device: Enter **Menu** -> **Option** -> **Communication option** to set the following items:

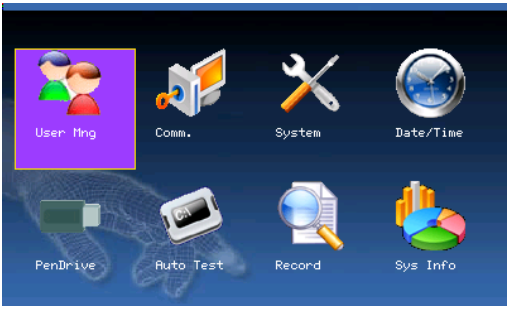
**Device ID:** Set it in "connection option". The number can be selected from 1-254.

**USB:** Select "Yes" for USB communication.

**Communication password:** Set it in "connection option". It can be set or not set. If it is set, input corresponding numerical value on connection interface of computer software.

## 1.5 Main Menu

Start at the device, and long press the **Menu** key to open the Main Menu, as shown in the following figure:




**User Management:** Browse the users' basic information like ID, name, fingerprint, card, password and privilege and so on; Increase, edit or delete operation the basic information, and the card management.

**Communication:** Set up communication parameters between the equipment and the computer, including IP address, gateway, subnet mask, baud rate, device number, communications password etc.

**System:** Manage the data and set the system parameters, including basic parameters, interface parameters, fingerprint and attendance parameters, to maximize meet user's needs in the functional, display and other areas.

**Date/Time:** Device time date should set accurate to ensure the accurate attendance time.

**Pen Drive:** By USB or SD card, the user info and attendance data etc. can be imported to the accordingly software to deal or import the user information for other fingerprint devices to use.

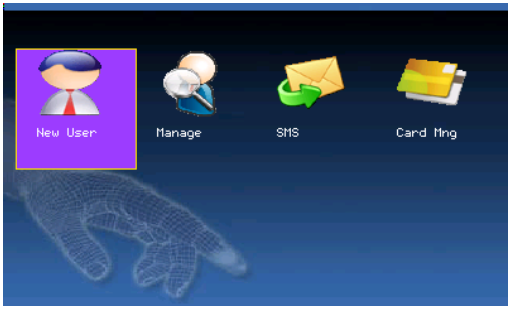
**Auto Test:** Automatically test the function of each module if it is workable, including the screen, reader, voice, keyboard and clock.

**Record:** For query the record saved in the device, query record function is provided.

**Sys Info:** To check the current device's saving status, its version information and so on.

# 2. User Management

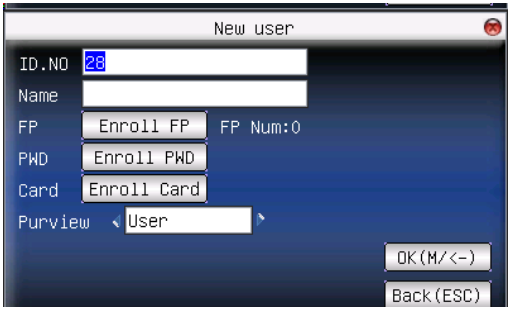
The user's basic information on the device includes fingerprint, password and card. In company's attendance management, for employee's change, the information on the device also needs modification. Therefore, operations including **Add**, **Delete**, **Edit** and so on can be done on the device.




## 2.1 Add a New User

Firstly, enroll employee's fingerprint or password in the device.

Enter [**New user**] interface:




☺ **Note**: Only some models have card enrollment option.

**AC.NO**: Staff's attendance number.

**Name**: Input user's name with T9 input method.

**FP** (Fingerprint): Enroll employee's fingerprint. Ten fingerprints can be enrolled at most.

The employee with fingerprint enrolled can use fingerprint to record attendance.

**PWD** (Enroll password): Enroll user's password. The effective digit is 1-8. The employee with password enrolled can use password to record attendance.

**Card:** Registered staff's Card, only the registered card is possible to check attendance.

**Privilege:** Users are people whose identity must be authenticated before enter a menu. The ordinary consumer can track attendance by the card or the password only; the manager already may equally carry on the daily checking attendance with the ordinary consumer, but may enter the menu to operate each option.

😐 **Note:** When there is no administrator, any person may enter the main menu and operate; after the administrator is enrolled, no one can enter the main menu until the administrator confirmed.

For example: the following is the flow for **Add user**.

**1. Input User ID**

1) Allocate User ID by default.

2) Press "⬅" to delete the allocated User ID by default. Input User ID from keyboard. If the User ID is wrong, press "⬅" and input it again.

**2. Input name**

Use T9 input method to input employee's name.

Press OK or ▲/▼ to select "Enroll fingerprint", then press OK to start fingerprint.

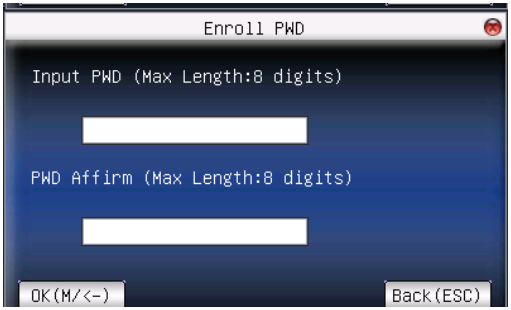
**3. Enroll fingerprint**

Press finger according to device's prompt. Press the finger three times in the proper way.

If one fingerprint is enrolled successfully, press **OK** to continue another finger, then press **menu** and **ESC** to return the previous interface.

Press ▲/▼ to select "Enroll password" and press **OK** to enroll password.

**4. Enroll password**

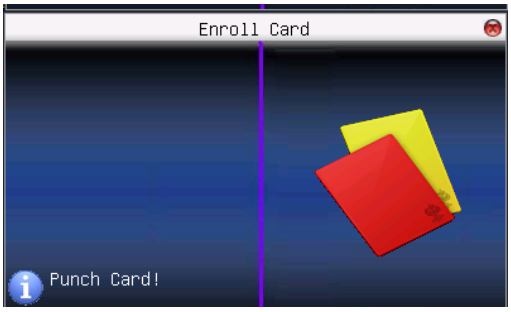



Input password (1-8) according to the prompt, and press **OK** to verify it. Then press **OK** save it or press **ESC** to exit without saving it.

After saving, signal will be on the device, which means the password has been set.

**5. Enroll cards ★**

Scroll ▲/▼keys to locate the cursor on "Enroll card" button, and press "OK" to enter the card registration.




Slight ware the card near the sensor area, after the equipment found the card number, press **OK** key to save, press **ESC** to give up, then remove the card from the equipment, after the "Enroll successfully" the card number will display on the register button.

**6. Privilege setting**

Scroll the▲/▼ key and local cursor on the "Privilege" option box, scroll ◀/▶ key to choose privilege.

**7. Save/exit user registration**

To confirm the registration information is correct, after getting confirmation, save it.

**The way for saving:**

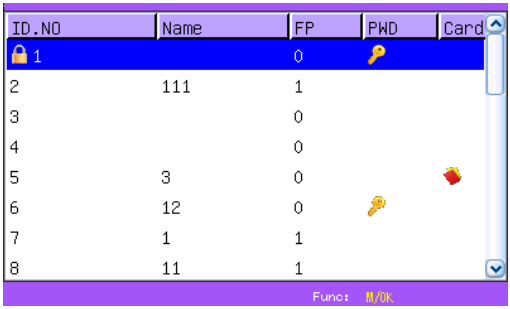
1) Scroll ▲/▼ key to locate cursor on the "OK (M/<-)"button, please press "OK" key again, the prompt "Change saved! Continue?" on the equipment, press "OK" the key to continue, otherwise, press ESC to exit.

2) Press the ESC key or scroll ▲/▼key to locate the cursor on the "Back (ESC)"button, please press "OK" key again, the prompt "Do you want to save changes" appear on equipment, press "OK" key to save and return to the previous interface, does not save and return to the previous interface, press ESC key.

## 2.2 User Management

All users' information saved in the current device can be queried in **User Management,** including user name, fingerprint count, whether to enroll password or

card, user attendance record and so on. Editing or deleting user can also be done here.




**Note**:

1) Means this employee is the administrator. Means password has been enrolled. Means ID card has been enrolled.

2) The picture may be different from your device. The real product prevails.

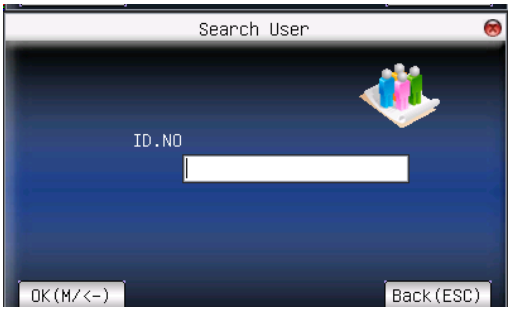
Press **menu** on the above interface, and the operating menu will pop out:

Press ▲/▼ to select the item.

### 2.2.1 Search User

If many users are enrolled, in order to find an employee quickly, the device has provided “User ID” to search the employee.

Press **menu** on **manage user** interface to get operating menu. Select “Search user” or press any numeric key to enter the following page:

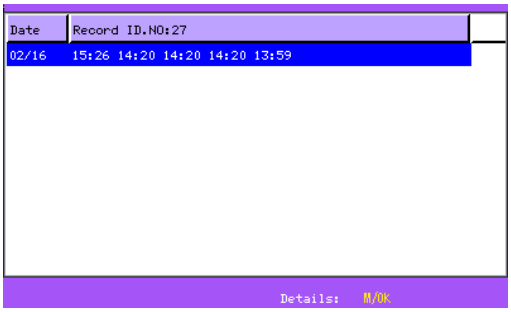



Input User ID of employee to be queried. Press **OK**, after successful query, the blue cursor will point to the employee. If there is no such employee, "no enrolled data" will appear.

### 2.2.2 Query Attendance Record

When administrator is checking employee's fingerprint and other enrolled information, he can also check the employee's attendance record during that month.

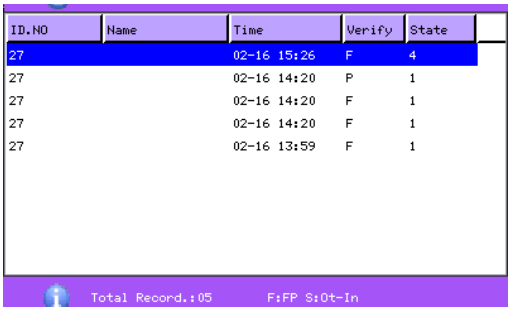
Press **menu** on **user management** interface to get the operating menu, select "Record", and the employee's monthly attendance record can be checked:




☺ **Note**: The picture may be different from your device. The real product prevails.

Press ▲/▼ to read attendance record.

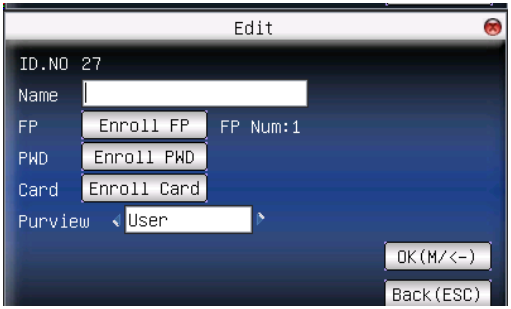
Press **OK** for detailed information.




Then press **ESC** to return to **user management** interface.

### 2.2.3 Edit User

Edit user information saved in the device. For example, the former enrolled fingerprints are unusable, enter "edit user" to re-enroll fingerprint, password or card. Use ▲/▼ or **search user** on **user management** interface to select employee to be edited. Then press **menu** to select "edit" or press **shortcut** to verify it, and all enrolled information can be displayed on the device:




☺ **Note:** Only some models have name and card options.

User ID cannot be modified. The operation is similar to that of **add user**. Fingerprint can be re-enrolled. Click "enroll password" directly to set password or modify password. The access can also be modified.

**Save edition/exit edition**

1) Press **menu** or ▲/▼ to select [M/<-], press **OK**, save edition and return to **user management** interface.

2) Press **ESC** or ▲/▼ to select **ESC** and then press **OK**, and the device will prompt "Do you want to save changes?" If you want to save it, press **OK** and return to the previous interface. Or press **ESC** to return the previous interface directly.

### 2.2.4 Delete User

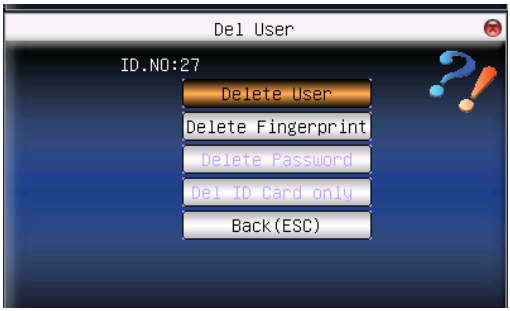
"Del user" is to delete employee's partial information or all information from the device. It is used when the following states happen:

1) When fingerprint or password of the employee is not needed any more.

2) When employee leaves the position.

Press ▲/▼ on **user management** interface or use **search user** to select the employee to be edited. Click **menu** to get operating menu, and then select "delete user".

**Delete user:**




☺ **Note:** Only some models have Del ID Card Only options.

If the user has no fingerprint or password, the corresponding item is blue and cannot be operated. Press ▲/▼ to select the item to be operated. Press **OK** to pop out dialog box and verify whether to delete this item or not. Then the device will give corresponding prompt. Press **ESC** to return to **user management** interface.

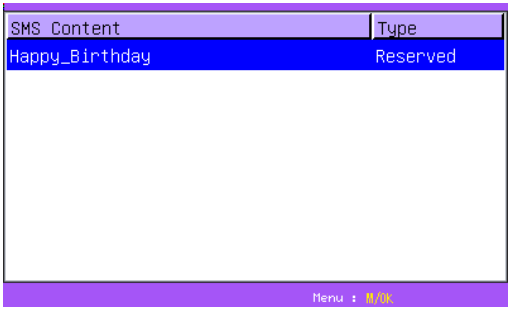
### 2.2.5 Add User

In order to add user conveniently for operator, **Add user** is configured here. The function is the same as that in 2.1 Add a New User.

## 2.3 SMS

The operator can edit the SMS content in advance and make it displayed on the screen. SMS includes common SMS and individual SMS. If a common SMS is set, the SMS figure will be displayed in information column at the bottom of standby interface in specified time. You can press the **shortcut** (can be set in 4.4 Keyboard Definition) to check the SMS content. If individual SMS is set, the employee who can receive SMS can see SMS after successful attendance.

**Operation**




**Note**: The picture may be different from your device. The real product prevails.

Press ▲/▼ to read SMS.

Press “page down & page up” to read SMS.

Press **OK** to query detailed information.

Press **Menu** to get SMS setting menu.

### 2.3.1 Set SMS

1）Add SMS

Press ▲/▼ in pop-up menu, select “New” to add a new SMS.

**Start time:** The time when SMS comes into effect

**Effective time length:** SMS appears in the effective time. After the effective time, it won’t appear.

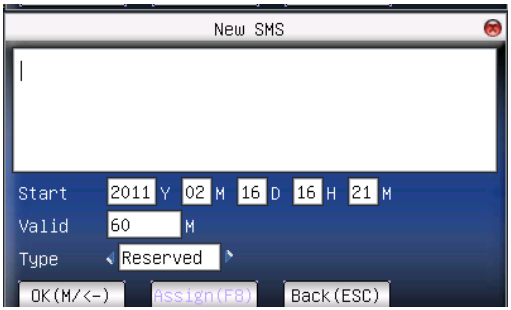
**Information type:**

**Individual**: SMS aimed at individual only.

**Public:** SMS able to be seen by all employees.

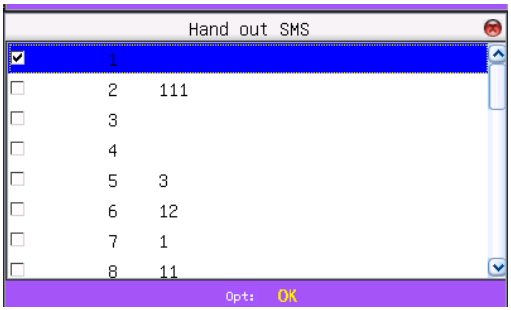
**Reserved**: Preset SMS, no difference of individual SMS or common SMS.

**Operation:**




When the cursor is on the text box, you can press the **shortcut** to enable T9 input, and input SMS content. Press ▲/▼ to switch option input box. You can press ◀/▶ to change setting or press numeric key to input value.

(1) If the selected type is individual SMS, **Assign** is enabling. Here, it is to distribute individual SMS to employee:




Press ▲/▼ to search employee.

Press “page down & page up” to search employee.

Press **OK** to select the employee, and SMS will be distributed to him.

Press **menu** to save it and then exit.

☺ **Note**: If exit without selecting any employee, the SMS type will become **reserved**.

(2) If the selected type is common SMS or preset SMS, **distribute** cannot be used.

After setting, press **menu** to save it and return to SMS list.

2) Edit SMS

Press ▲/▼ in pop-up menu to select “Edit”, and SMS can be edited.

The operation is the same with that of **Add SMS.**

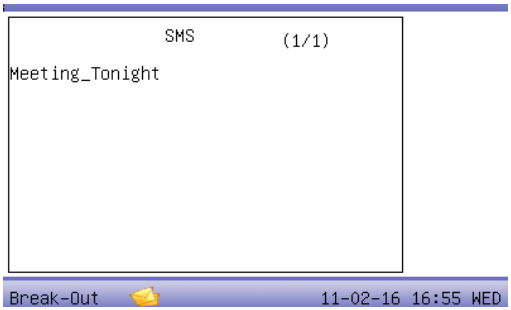
3) Delete SMS

Press ▲/▼ in the pop-up menu to select “Delete”, and the selected SMS can be deleted. At the same time, all information related with this record can be cleared.

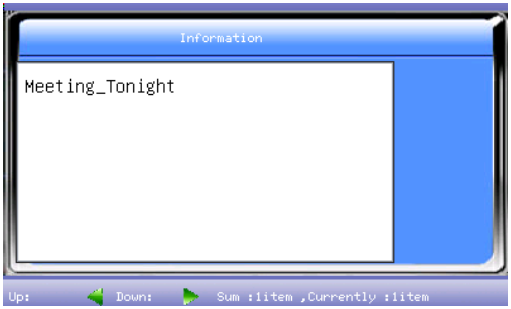
### 2.3.2 Employee Check SMS

1) Check common SMS

When the device is in standby state, the main interface will display pictures and current effective common SMS content in cycle. The display time interval is the same with that of picture display.

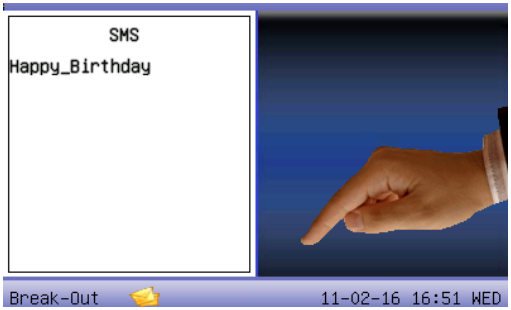



When appears on main interface of the device, press **shortcut** (defined in 4.4 Keyboard Definition) to check current effective common SMS in time.




2) Check individual SMS

When user passes verification, if the user has SMS, the SMS content will be displayed.

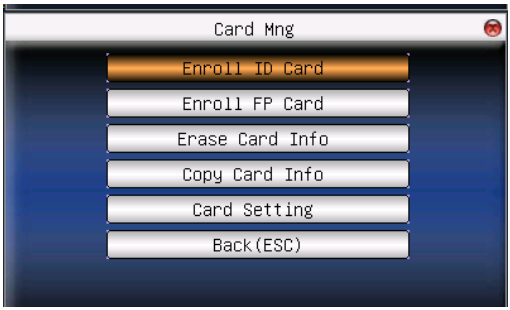


The information display time length is 30 seconds. During this period, user verification can be done. Close the current display to enter verification interface.

## 2.4 Card Management ★

Support Mifare non-touch intelligent card with working frequency of 13.56MHZ. Integrate fingerprint attendance to other systems and support multi-verification mode to meet the demands of different people.

**Operation:**




Press ▲/▼ to select your desired item, press **OK** to execute the current selected item.

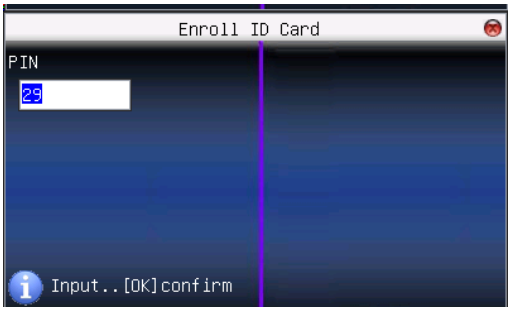
### 2.4.1 Enroll Card

Use Mifare card as ID card. Only card number is needed to enroll.

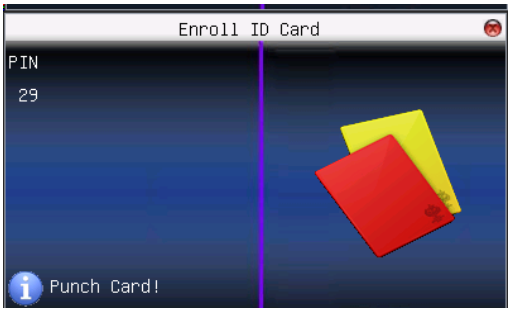
**Operation:**

**1. Enrollment**

**Step 1:** Select **Enroll ID Card** and then press **OK.**




**Step 2:** Press keyboard to input the number to be enrolled (if the number has been there already, the device will prompt you to copy the information to the card), and then press **OK**.




**Step 3:** The device prompts to punch card.

**Step 4:** Put the card in the sensor area until the operation is successful.

**2. Verification:**

Punch the card in the sensor area. After the device reads the card, move the card away. When the verification is successful, the device will give prompt.

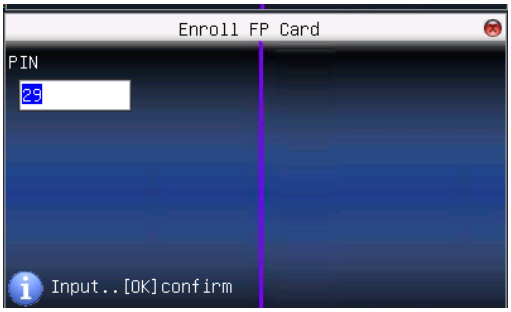
### 2.4.2 Enroll Fingerprint Card

Enroll fingerprint and write fingerprint into card.

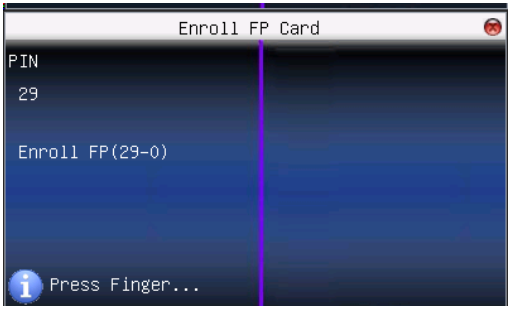
**Operation:**

**1. Enrollment**

**Step 1:** Select **Enroll FP Card** and press **OK**.

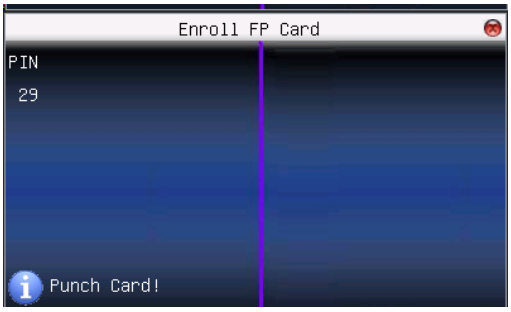



**Step 2:** Use keyboard to input the number to be enrolled (if the number has been there already, the device will prompt you to copy the information to the card), and then press **OK**. The device will prompt you to press your finger.




**Step 3:** Press finger properly for three times.

**Step 4:** Device prompts “Punch Card”.




**Step 5:** Put the card in the sensor area, waiting for the device to read fingerprint data into card until the enrollment succeeds.

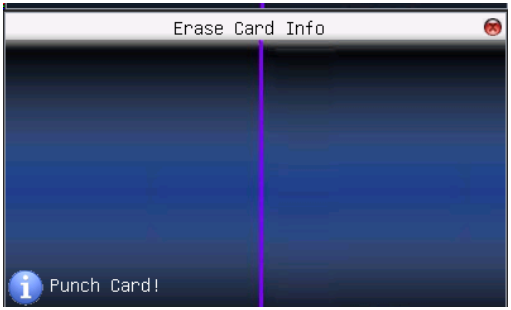
**2. Verification:**

Punch the card in the sensor area. After the device reads the card, move the card away. When the verification is successful, the device will give prompt. If the pressed fingerprint is different from that stored in the card, the verification will fail.

### 2.4.3 Clear Card Information

Delete all the information in the card being operated at present.

**Operation:**



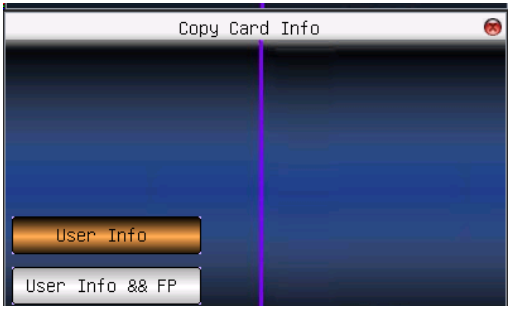

Select **Erase Card Info** and press **OK**. Put the card in the sensor area, waiting for device to delete all the information in the card. If the card data has been stored in the device, the device will remind you whether to delete the information in the device or

not. “Yes” is to delete the user’s fingerprint and information in the device. “No” is to keep the information.

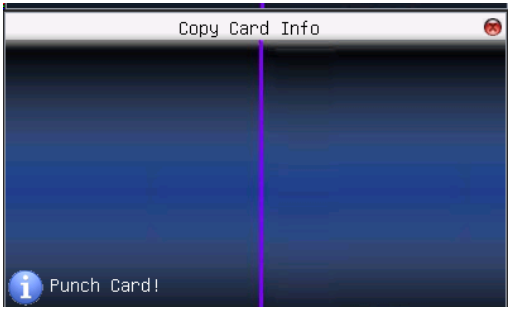
### 2.4.4 Copy Card Information

Copy card information to the device (after that, the fingerprint is still in the card), then press **fingerprint attendance** directly on the device, with no need of using card.

**Operation:**




Select **Copy Card Info** and press **OK**. Press ▲/▼ to select copy “User Info” or “User Info && FP”, and then press **OK.**




### 2.4.5 Card Setting

Set password of Mifare card and decide whether the information should be saved or

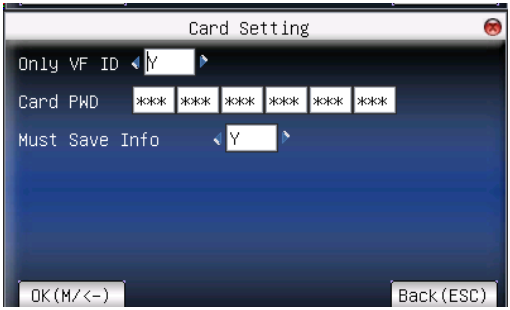
not.

**Only Verify ID:** Verify the user as ID card verification.

**Fingerprint Card Password:** After the password is set, the device will write password into the enrolled fingerprint card. Then the fingerprint card can only be used on this device.

**Must Save Information:** When you enroll the card or fingerprint card, save the enrolled information in the device or not. "No" means the information is only saved in the card. "Yes" means the information is saved in both card and device.

**Operation:**




Press ▲/▼to move cursor to the item to be set. If it is the input box, press numeric keys on keyboard to input the value. If it is the roll box, press ◀/▶ button to switch the values. After setting, press OK directly to return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

☺ **Note**: Card sensor area is 3cm-5cm above fingerprint reader.

# 3. Communication Settings

When the device and computer are used to transmit data, it is necessary to use communication wire to set communication parameters in the device. When the device is in communication, “communicating…” appears. Don’t operate the device then.

☺ N**ote:** When the device is communicating with computer, please check the setting here. The parameters here must be in accordance with that of software communication interface.

## 3.1 Network Option

When Ethernet is used for communication of device and computer, the following settings need to be checked:

**Device IP address**: IP is 192.168.1.201 by default. You can modify it if it is necessary. But it cannot be the same with that of computer.

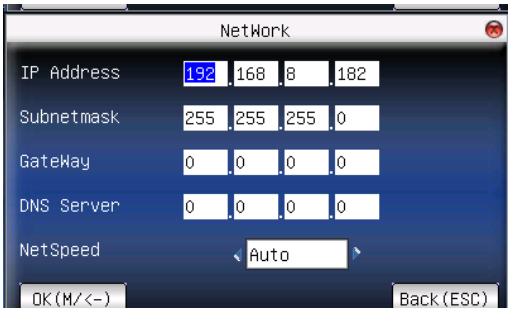
**Subnet mask**: It is 255.255.255.0 by default. You can modify it if it is necessary.

**Gateway address:** It is 0.0.0.0 by default. If the device and computer are in different net segment, it is necessary to set address.

**DNS Server:** Set the DNS Server for the communication.

**Net speed:** Set the speed according to the LAN where the device is.

**Operation:**




Press ▲/▼to move cursor to the item to be set. If it is the input box, press numeric keys on keyboard to input the value. If it is the roll box, press ◀/▶ button to switch the values. After setting, press **OK** directly to return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

## 3.2 Serial Port Option

When serial port (USB) is used for communication of device and computer, the following settings need to be checked:

**Baud rate:** Used for communication with computer. There are five options: 9600, 19200, 38400, 57600 and 115200.

**USB:** Whether use USB to communicate. Select "ON" if USB is to be used.

Set RS232 and RS485 to **OFF** when you need to use USB communication.

☺ **Note:** Only some models have USB communications.

**Operation:**

Press ▲/▼to move cursor to the item to be set. Press ◀/▶ button and choose the values. After setting, press OK directly to return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

## 3.3 Connection Option

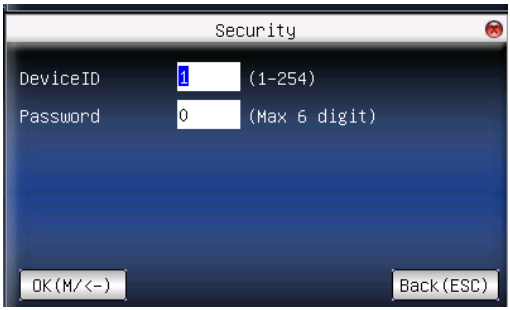
When USB is used for communication of device and computer, it is necessary to set device ID.

**Device ID:** 1-254. If USB is used, this ID needs to be input on the software communication interface.

To improve the security of attendance data, connection password needs to be set here. Connection password must be input when computer software is to connect device to read data.

**Connection password:** System password is **0** by default (namely, there is no password), it can be set as other value. After setting, the password must be input if software is to communicate with device. Or the connection will fail. The password length is 1-6 digits.

**Operation:**




Press ▲/▼ to move cursor to the input box. Press numeric key on keyboard to input the value. After setting, press **OK** directly to return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

## 3.4 Wireless Option ★

Before the device is used for wireless network, other physical groupware of 802.11 networks, such as joint, distributing system, wireless medium must be in existence. ESSID to connect to the network must be known (network ID).

**Network ID:** Network ID to be connected to wireless network. (There is difference between small letter and capital letter.)

**Network model:** there are two models: infrastructure model (for star structure) and ad-hoc model (for peer-to-peer-network).

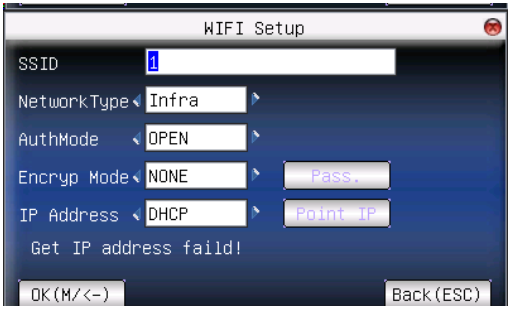
**Authentication mode:** Infrastructure mode includes five authentication modes: OPEN, SHARED, WEPAUTO, WPAPSK and WPA2PS002E.

**Ad-hoc model:** Include four authentication modes: OPEN, SHARED, WEPAUTO and WPANONE.

**Encrypt type:** when the selected encrypt type is NONE, the password in WEP (Wired equivalent privacy) and WPA (WiFi protested access) cannot be edited, namely, it is not necessary to input password.

**Device IP address:** In 802.11 wireless networks, there is DHCP. Or enter IP interface to input correct IP address, subnet mask and so on.

**Operation:**

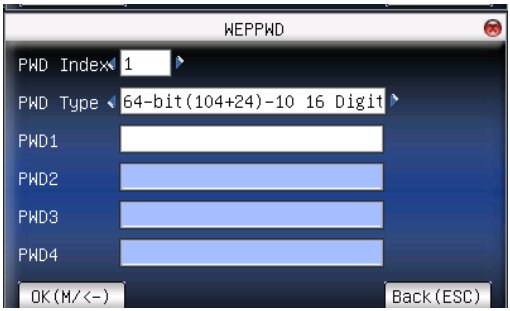



Press ▲/▼ to switch cursor to the input box or button. Use T9 input to input network ID, which must be input, or the cursor cannot be moved to other input box. Press ◀/▶ button to select the item you need to set, and then press [M/OK] to do the corresponding operation.

**1) Set password:**

According to the selected authentication mode and different encrypt types the interface where password is set is also different. There are two interfaces: WEP and WPA.

**WEP password:**



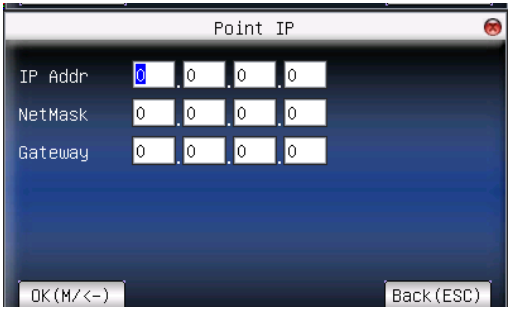

Input correct password. There are four passwords in **WEP password**. If the four passwords are set properly, only the current selected password is the effective value.

**WPA password:**

Input correct password, set password, press [M/OK] to save the setting, and then return to **wireless option** interface.

**2) Specify IP:**

Specify the device IP in wireless network. It has nothing to do with **network option** in **communication option**.



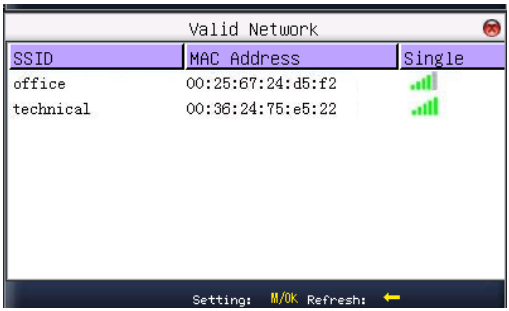

After IP is specified, press OK to save the setting, and then return to **wireless option** interface.

After setting, press OK directly to return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

Otherwise, user can use the WIFI Software in the device accessory CD-ROM to set the parameters. For details, please refer to Appendix 10.11 WIFI Software Using Instructions.

## 3.5 Wireless Network ★

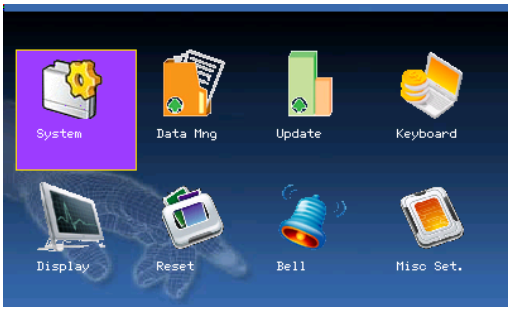
Check wireless signal and the signal intensity received in the current environment to create condition for user to select better network.




Press **M/OK** to set the selected wireless network. Press ◄ to refresh the list.

# 4. System Option

Set system parameters to meet user's demand as much as possible.




## 4.1 System Parameter

**1: 1 matching threshold value:** The similarity of ID + fingerprint verification and the enrolled template

**1: N matching threshold value:** The similarity of verification and the enrolled template

Recommended matching threshold value:

| FRR FAR | Matching threshold value | |
|---|---|---|
| | 1:N | 1:1 |
| high low | 45 | 25 |
| middle middle | 35 | 15 |
| low high | 25 | 10 |

**Date format:** Time format displayed on the initializing interface of fingerprint reader.

Press ◀/▶ button to select the format you need to set. The fingerprint reader supports ten date format: YY-MM-DD, YY/MM/DD, YY.MM.DD, MM-DD-YY,

MM/DD/YY, MM.DD.YY, DD-MM-YY, DD/MM/YY, DD.MM.YY and YYYYMMDD. Select your desired date format.

**Key beep:** Press ◄/► to set whether the key has voice or not. "Yes" means having voice, and "No" means no voice.

**Sensitivity:** Set the sensitivity of the FP sensor.

**Voice prompt:** Press ◄/► to select whether to give voice prompt or not. The device will give corresponding voice prompt during operation.

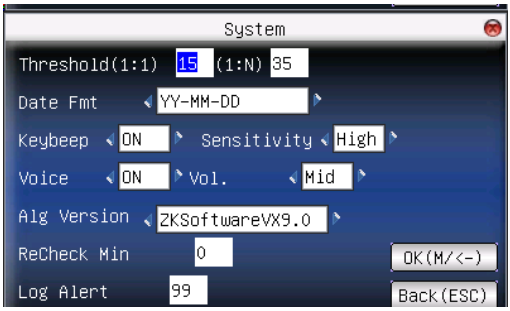
**Volume:** Press ◄/► to set it.

**Alg Version:** Select to use 9.0 or 10.0 algorithm version.

**Recheck Minutes:** It is in the set time range (unit: minute). If somebody's attendance record has been there, then the record of second attendance won't be saved (effective value is 0-60 minutes. 0 means all the records after verification are saved).

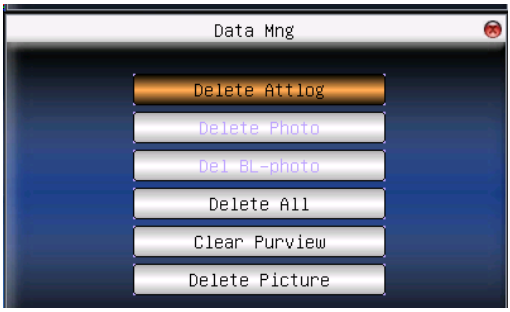
**Log Alert:** After the free time period reaching this value, the device will trigger alarm automatically (effective value is 0-99, 0 means the space is all used and there is no alarm).

**Operation:**




Press ▲/▼ to move cursor to the input box. If it is the input box, press numeric keys on keyboard to input the value. If it is the roll box, press ◄/► button to switch the values. After setting, press **OK** directly to save the setting and return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

## 4.2 Data Management




**Delete Attlog:** Delete all attendance records.

**Delete All:** Delete all enrolled employees' information, fingerprint and attendance record.

**Clear Purview:** Change all administrators into common users.

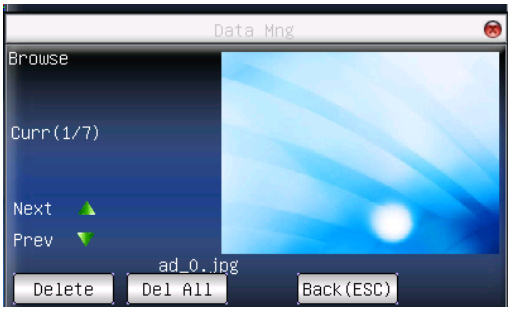
**Delete Picture:** Delete all user uploaded pictures in the device.

**Operation:**

Press ▲/▼ to move cursor to the selected button. Press OK to start operation. The device will remind you whether to continue the current operation or not. Then press OK to delete all the data, which won't be recovered after deletion. Press **ESC** to return to the previous interface.

**Delete Picture:** Clear the propaganda pictures uploaded to the device from U disk or SD card (Refer to 6 U Disk Management for how to upload the propaganda pictures).

**Operation:**




Press "▲/▼" to preview the propaganda pictures in the device. Click **OK** to delete all these pictures. After deletion, the next picture will appear. Click **"Delete all"** to delete all the propaganda pictures in the device. Then press **ESC** to return to **Data Management** interface.

## 4.3 Upgrade Firmware

Update the firmware by utilizing the USB Pen Drive (flash drive)

☺ **Note:** If you need such upgrade file, please contact our technician. Usually, firmware upgrade is not recommended.

**Operation:**

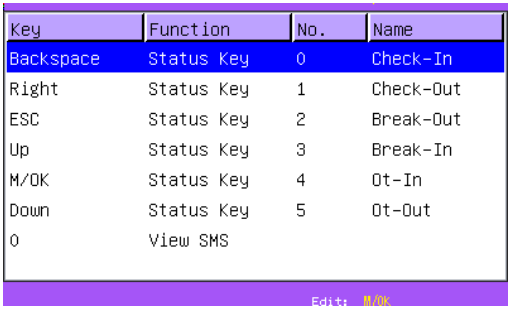
Insert U disk with upgrade file into the USB slot. The device will identify the file automatically. The device will give prompt whether it is successful or not.

## 4.4 Keyboard Definition

User defined the device's attendance status key. Press corresponding status key to record attendance.

Press any status key on the standby interface, and the attendance status and status key will be displayed at the left bottom of the screen.

**Operation:**




Press ▲/▼ to read **shortcut definition.**

Press **OK** to edit the selected **shortcut.**

### 4.4.1 Set Shortcut

Select a **shortcut**, press **OK** to enter **edit** interface.

**Function:** Set shortcut function for his key, including status key and view SMS.

The following options will appear after the status key is selected:

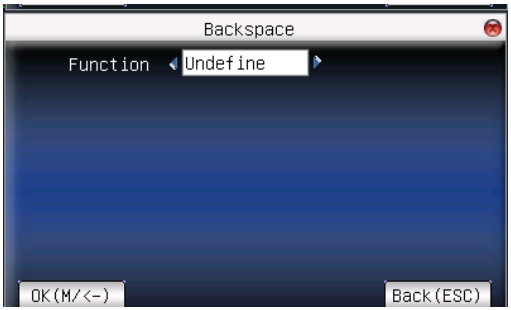
**Code:** Allocate a code for status key to provide convenience to check the record statistics.

**Name:** The name of key status.

**Auto switch:** When it reaches the set time point, the device will switch the attendance status automatically.

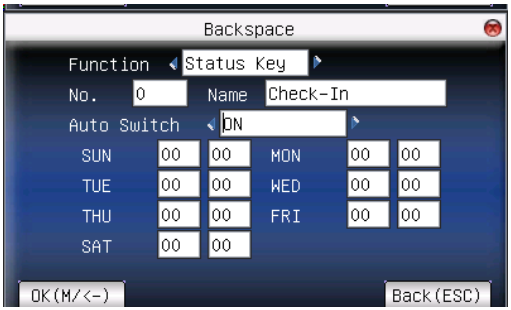
**1) Set it as function key**

**Operation:**




Press ◀/▶ to set "Backspace" as view SMS.

**2) Set it as status key**




Press ▲/▼ to move cursor to the input box. Press numeric key on keyboard to input the value. After setting, press **OK** directly to save the setting and return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

### 4.4.2 Use Shortcut

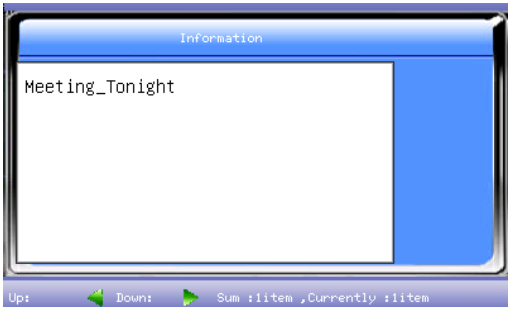
**1) Status key**

Press ◀ key on standby interface and the corresponding status will appear at the left bottom.

**2) Shortcut key**

Set “0” as view SMS in **setting**.

Press “0” on standby interface to enter the interface of SMS.




## 4.5 Interface Option

**1:1 Match Retry Times & Password Retry Times:** When user is using 1:1 match or password verification, he may forget to enroll fingerprint or does not press the finger in the proper way. For user’s convenience and to reduce repeat key, the device allows retry. User can set initializing interface’s display style.

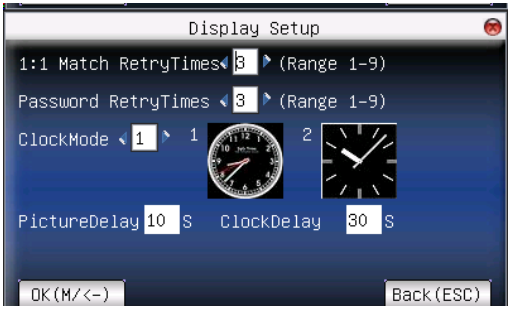
**Clock Mode:** After verification, the selected clock mode will be displayed on the screen.

**Display propaganda picture:** User can display some propaganda pictures on the screen.

1) Picture cycle interval means how soon the picture will be changed (effective value is 3-999 seconds.)

2) Time display delay means the clock picture display time length after verification. After the display delay, the propaganda picture will be displayed on the initializing interface again (with effective value of 0-999 seconds, and 0 means displaying clock all along).

**Operation:**




Press ▲/▼ to move cursor to the input box. Press numeric key on keyboard to input the value. After setting, press **OK** directly to save the setting and return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

## 4.6 Reset

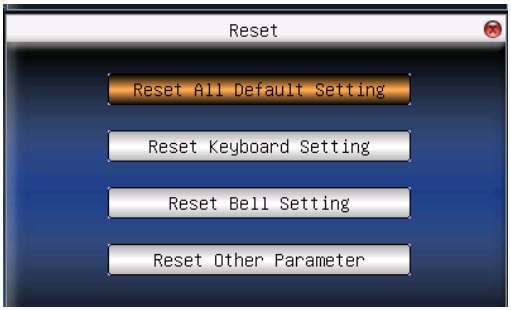
Make device's communication option, system option and so on reset to the state of factory.

**Reset All Default Setting:** Make all the parameters in the device reset to the state of factory.

**Reset Keyboard Definition**: Reset the corresponding setting of keyboard definition to that of factory.

**Reset Bell Setting**: Only reset bell option to factory state.

**Reset Other Parameters:** Only reset communication option, system parameter and interface option and so on to factory state.



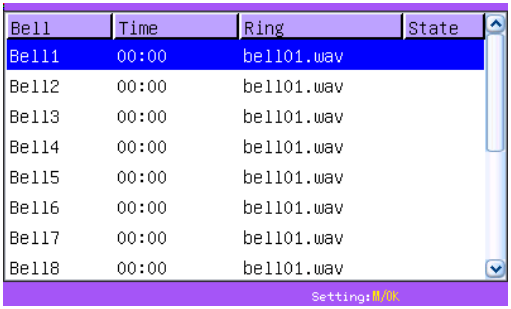

Press ▲/▼ to move cursor to the button to be operated. Press **OK** to start operation. The device will say "Are you sure?" Press **OK** to reset it to factory state and press **ESC** to cancel operation.

☺ **Note**: The employee's information and attendance data won't be deleted when this operation is being done.

## 4.7 Bell Option

Many companies need bell for on-duty and off-duty. Some use manual bell. Some use electronic bell. To save cost and provide convenience for management, we integrate bell functions to fingerprint reader. You can set time for bell. When it is the scheduled time, the fingerprint reader will play the selected ring automatically. And the ring will stop automatically when it is the end time.

**Operation:**



Press ▲/▼ to read bell option.

Press OK to set the selected bell and edit the bell.

**Bell time:** The bell rings automatically when it is the specified time.

**Music:** Bell ring.

**Volume:** ring volume.

**Times:** Ring times.

**State:** Whether to enable this bell.

Press ▲/▼ to move cursor to the input box. Press numeric key on keyboard to input the value. After setting, press **OK** directly to save the setting and return to the previous interface. Press **ESC** to exit.

**Note**: Ring time can be set with week as the period, namely, the bell rings automatically at some time of some day in a week. The External bell is not the must configuration. If you want it, please contact our businessman or technician.

## 4.8 Other Options

Set sleep time, external bell and other parameters for the device.

**Sleep Time**: When it is the scheduled sleep time, the device not in operation will enter sleep status. Press any key or finger to awake it.

**Fingerprint Image**: Select whether to display the fingerprint image on the screen when it is enrolling or verifying there are 4 options: display upon both enrollment

and verification, only display upon enrollment, only display upon verification, not display upon enrollment and verification.

**Power Button**: To prevent hostile power-off, select whether to lock power-off or not.

**Key Position:** Choose the display position of the keyboard input.

**Beep Position:** Choose the beep position.

**Operation:**

Press numeric key on keyboard to input the value to be set. After setting, press **OK** directly to save the setting and return to the previous interface. Press **ESC** to cancel the setting and return to the previous interface.

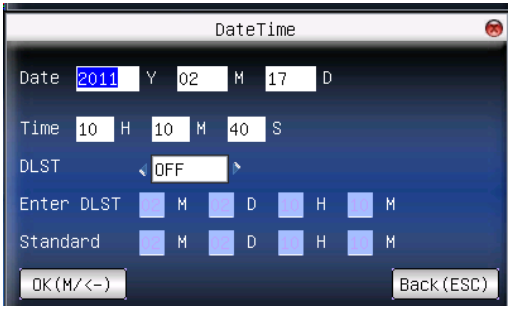
# 5. Time Date

## 5.1 Time Date Option

Accurate attendance time is based on accurate time date.

Enter **Date/Time** to set options:

**Operation:**




Press ▲/▼ to move cursor to the input box. Press numeric key on keyboard to input the value. After setting, press **OK** directly to save the setting and return to the previous interface. Press **ESC** to cancel setting and return to the previous interface.

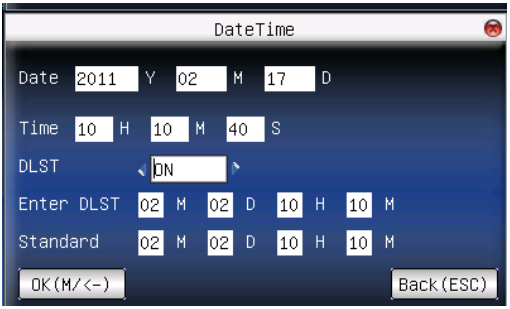
## 5.2 DLST

DLST, also called Daylight Saving Time, is a system to prescribe local time in order to save energy. The unified time adopted during the system date is called “DLST”. Usually, the time will be one hour forward in summer. It can make people sleep early and get up early. It can also reduce lighting to save power. In autumn, the time will be recovered. The regulations are different in different countries. At present, nearly 110 countries adopt DLST.

To meet the demand of DLST, a special option can be customized on our RF Card Time & Attendance recorder. Make the time one hour forward at XX (minute) XX (hour) XX (day) XX (month), and make the time one hour backward at XX (minute)

XX (hour) XX (day) XX (month) if necessary.

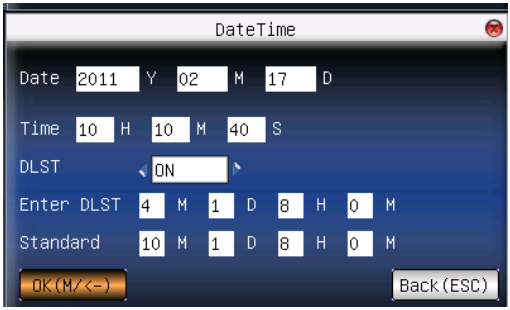
**Operation:**




1) Set DLST as “ON”.

2) Input DLST start time and end time.

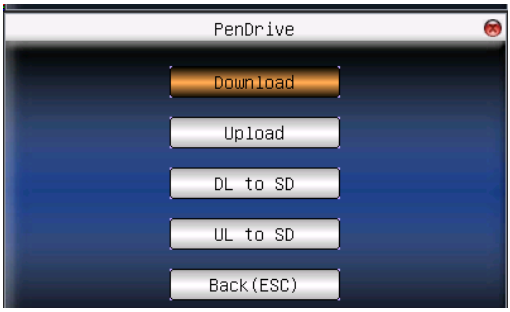
For example, if 08:00, April 1st is set, the device enter DLST, and the time will be one hour forward. If it is 08:00, August 1st, the device will reset normal time.




3) Press OK to save setting. Press **ESC** to exit without saving.

# 6. U Disk Management

Import user information, fingerprint template, attendance data and so on in the device to attendance software or import user information and fingerprint to other devices through U disk or SD card.




## 6.1 Download by U-disk

**1. Download attendance data**

Save all attendance data in the device to U disk.

**Operation**

1) Insert U disk into USB slot of the device.

2) Press "▲/▼" to Download Attlog.

Press OK for verification. "Downloading, wait…" will appear on the display when the device is downloading attendance data until it is successfully downloaded.

3) Press ESC to return to initializing interface. Pull out U disk. X_attlog.dat (attendance log) will be saved in U disk. (X stands for device ID).

**2. Download user data**

Save all users' information and fingerprint in the device to U disk.

**Operation:**

Insert USB flash disk into USB slot of the device, press "▲/▼" to **download user**,

then user.dat (user information) and template.dat (fingerprint template) will be saved in U disk.

**3. Download SMS**

Save SMS added in the device to U disk.

**Operation:**

Insert U disk into USB slot of the device. Press "▲/▼" button to select **download SMS.** After successful download, udata.dat and sms.dat can be seen in U disk.

**4. Download Photo**

Save user photo in the device to U disk.

**Operation:**

Insert U disk into USB slot of the device. Press "▲/▼" button to select **download Photo.** After successful download, the user photo will can be seen in U disk, as the format of **userID.jpg**.

## 6.2 Upload by U-disk

**1. Upload user data**

Upload user information and fingerprint saved in U disk to device.

**Operation:**

Insert U disk into USB slot of the device. Press "▲/▼" to select **upload user data**, and then press **OK**, and user.dat (user information) and template.dat (fingerprint template) in U disk will be uploaded to the device. If there are no such files, "data copy error" will appear.

**2. Upload SMS**

Upload SMS in U disk to the device.

**Operation:**

Insert U disk into USB slot of the device. Press "▲/▼" button to select **upload SMS** and then press OK. Udata.dat and sms.dat will be uploaded to the device.

**3. Upload photo**

Upload user photo in U disk to the device.

**Operation:**

Insert U disk into USB slot of the device. Press "▲/▼" button to select **upload Photo** and then press OK. The user photo named as **userID.jpg** will be uploaded to the device.

**4. Upload user defined picture**

Upload JPG picture started with "ad_" in U disk to the device. Then this picture will be displayed on the initializing interface (Refer to Appendix 10.6 Propaganda Picture Upload Rules).

**Operation:**

Insert U disk into USB slot of device. Press "▲/▼" to preview the pictures of U disk. If you want to upload the picture, click **OK**. Then the next picture will appear automatically. After upload, press ESC to exit.

## 6.3 Download to SD Card

**1. Download attendance data**

Save all attendance data in the device to SD card.

**Operation**

1) Insert SD card into SD card slot of the device.

2) Press "▲/▼" to Download Attlog.

Press OK for verification. "Downloading, wait…" will appear on the display when the device is downloading attendance data until it is successfully downloaded.

3) Press ESC to return to initializing interface. Pull out SD card. X_attlog.dat (attendance log) will be saved in SD card. (X stands for device ID).

**2. Download user data**

Save all users' information and fingerprint in the device to SD card.

**Operation:**

Insert SD card into SD card slot of the device, press "▲/▼" to **download user**, then user.dat (user information) and template.dat (fingerprint template) will be saved in SD card.

**3. Download SMS**

Save SMS added to the device to SD card.

**Operation:**

Insert SD card into SD card slot of the device. Press "▲/▼" button to select **download SMS.** After successful download, udata.dat and sms.dat can be seen in SD card.

**4. Download Photo**

Save user photo in the device to SD card.

**Operation:**

Insert SD card into SD card slot of the device. Press "▲/▼" button to select **download Photo.** After successful download, the user photo will can be seen in SD card, as the format of **userID.jpg**.

## 6.4 Upload by SD Card

**1. Upload user data**

Upload user information and fingerprint saved in SD card to device.

**Operation:**

Insert SD card into SD card slot of fingerprint reader. Press "▲/▼" to select **upload user data**, and then press **OK**, and user.dat (user information) and template.dat (fingerprint template) in SD card will be uploaded to the device. If there are no such files, "data copy error" will appear.

**2. Upload SMS★**

Upload SMS in SD card to the device.

**Operation:**

Insert SD card into SD card slot of the device. Press "▲/▼" button to select **upload SMS** and then press OK. Udata.dat and sms.dat will be uploaded to the device.

**3. Upload photo**

Upload user photo in SD card to the device.

**Operation:**

Insert SD card into SD card slot of the device. Press "▲/▼" button to select **upload Photo** and then press OK. The user photo named as **userID.jpg** will be uploaded to the device.

**4. Upload user defined picture**

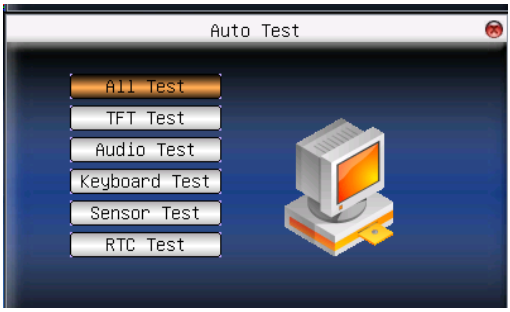
Upload JPG picture started with "ad_" in SD card to the device. Then this picture will be displayed on the initializing interface. (Refer to Appendix 10.6 Propaganda Picture Upload Rules)

**Operation:**

Insert SD card into SD card slot of device. Press "▲/▼" to preview the pictures of SD card. If you want to upload the picture, click **OK**. Then the next picture will appear automatically. After upload, press ESC to exit.

# 7. Auto Test

The device can test various modules automatically to help operator to judge the module with fault quickly. Auto test include TFT Test, Audio Test, Keyboard Test, Sensor Test and RTC Test.




Press "▲/▼" to select the item. Press OK to start it.

## 7.1 TFT Test

The device can automatically test TFT color display effect through color display (white display and black display), to see whether the screen works normally.
Press **OK** to continue and press **ESC** to exit.

## 7.2 Audio Test

The device can automatically test voice prompt effect through playing voice files in the device to see whether the files are complete and the voice effect are good or not.
Press **OK** to continue and press **ESC** to exit.

## 7.3 Keyboard Test

The device can automatically test various keyboards to see whether the keys work normally or not.
Press any keyboard on the test interface (except for **OK** and **ESC**) to check whether

the pressed keyboard is in accordance with that displayed on the screen.

Will appear when it is the right key, and will appear when it is not the right key.

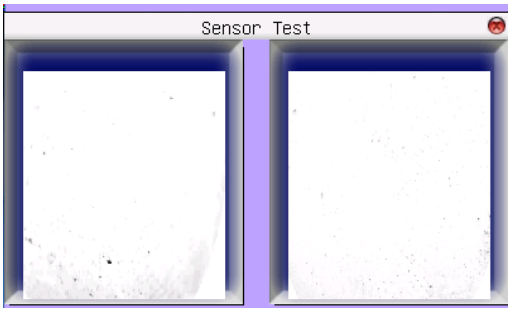
Press **ESC** to exit.

## 7.4 Sensor Test

The device will automatically test the FP reader to see whether it works normally.

Press fingerprint to see whether the image is clear and usable.

Press fingerprint on the reader window and the fingerprint image will appear on the screen.




Press **ESC** to exit.

## 7.5 Real-time Clock

The device can automatically test the clock to see whether it works normally.

Press **OK** to start time and then press **OK** to stop time.

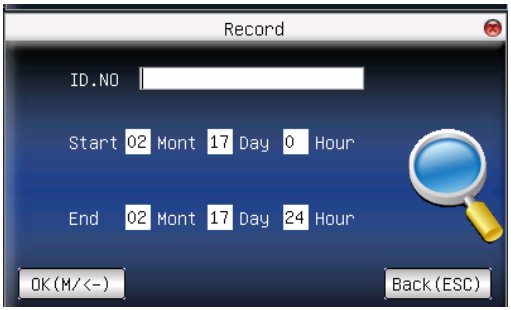
Press **ESC** to exit.

# 8. Query Record

Employee's attendance records will be saved in the device. For convenience, query record function is provided.

According to user's input query condition, the record will be displayed on the screen for user to check.

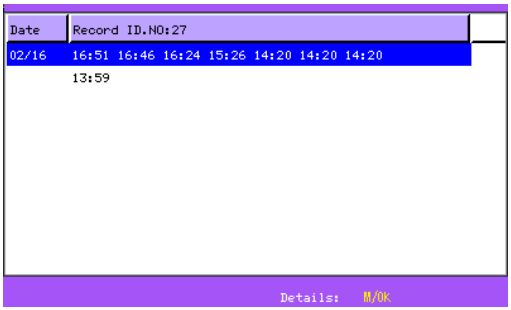
Enter **Record**, input corresponding information in the query condition input box.




1) When the User ID is blank, all employees are inquired.

2) When input a User ID, only this employee's attendance record can be queried.

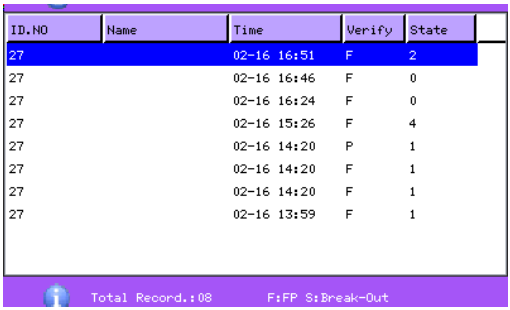
After query, the records in accordance with the conditions will be displayed on the screen:




Press "▲/▼" to move the cursor to the line to be queried. And press **OK** to check

attendance record.

For example, the detailed attendance information of employee 27 on May8th as follows:




At the bottom of the screen, there are some remark, and the capital letters with their meanings:

Verification:

F: Means Fingerprint verification

P: Means Password verification

C: Means ID card verification

Status:

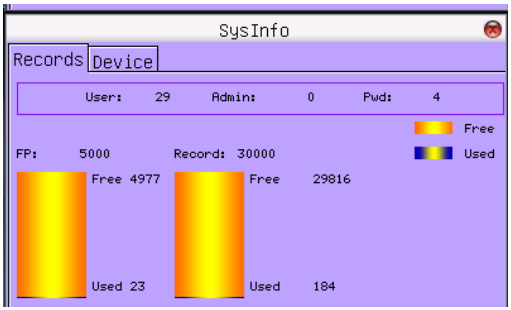
It is the attendance status. The code displayed in the list is the status code. And status name will be displayed in the information column.

# 9. System Information

Use **system information** to check the current device's saving status, its version information and so on.

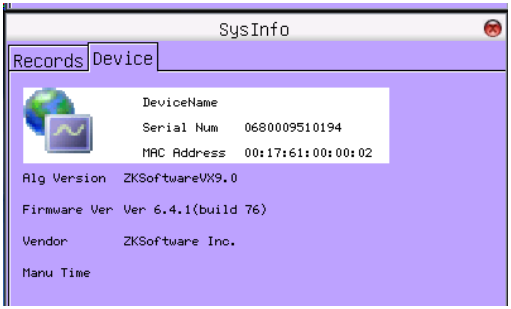
## 9.1 Record Capacity

Display the count of enrolled users, administrator, password enrollment, the current enrolled fingerprint and the current saved attendance record. Also display the capacity of the fingerprint and attendance record, as show below:




## 9.2 Device Information

Display device name, serial number, version information, and vendor and manufacture date in device information for check.



# 10. Appendix

## 10.1 Keyboard

Different device has different kinds of keyboard, and the function of the keyboard is different. Please check the fallows:

| Key | Function |
|---|---|
| Numeric key | 1. 0～9,used to input employee number, password and so on.<br>2. 0 on **manage user** interface is **shortcut** of "search user". |
| ▲ | 1. Upward.<br>2. Shortcut. |
| ▼ | 1. Downward.<br>2. Shortcut. |
| */▶ | 1. Modify current item value.<br>2. Shortcut.<br>3. Enable T9 input.<br>4. Switch input method in T9 input. |
| ◀/← | 1. Modify current item value.<br>2. Space back. Press it when User ID, password, and system value are input incorrectly to delete the wrong value and input the value again.<br>3. Shortcut. |
| 0/⏻ | 1. **Power-off.** Press it on the initializing interface for 3 seconds to enter power-off count down state.<br>2. Shortcut. |
| M/OK | **Menu**, **OK** |
| ESC | 1. Cancel the operation and return to the superior menu.<br>2. Close T9 input. |

## 10.2 USB

**1. USB Host**

The device will may be used as USB Host to exchange data with external U disk.

The data transmission speed is quick, the traditional fingerprint machine only supports the RS232, RS485 or Ethernet way data transmission, when as a result of physical condition limit, data quantity big, and the data transmission cost quite long time. But the USB data transmission is more quick than the former any transmission mode, may complete downloading data by U disk in a short period of time, like this greatly enhances the efficiency.

The operational steps of the device as USB Host please refer to the manual 6. U disk Management detailed briefing.

**2. USB Client ★**

The device will be as removable storage devices and the data in the device will transfer to a computer via connected USB cable.

When the device is an USB Client, the Communication Option will have USB communication options. For more details please refer to 3. Communication Settings.

## 10.3 Time Ring

In many factories, ringing apply to broadcast message to inform employee their duty are on or off, and the traditional way is to ring bell by manual or special electron machine. We have already embedded the time ring module into the fingerprint T&A system, you may benefit from the low cost and convenience management. There are more two options that is Bell schedule and Bell duration in the device bell ring provide with. The system total has eight Bell schedule to set, according to actual need you may set time bell, when the time arrive at the appointed time, the device will automatically ring bell, the duration of ringing achieve assigned hour, the ringing will stop automatically.

There are two to ring bell:

1) Send sound from the speaker of device.

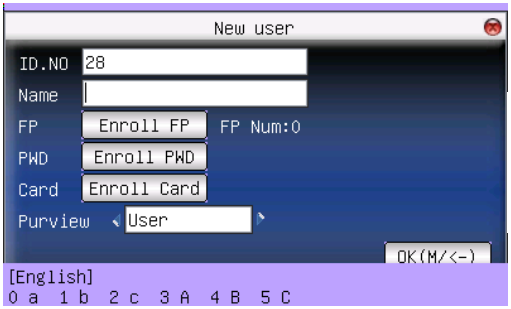
2) ★Connect the external electrical bell to the device, when arrive the appointed time, the device will send signal to trigger relay.

## 10.4 T9 Input Method

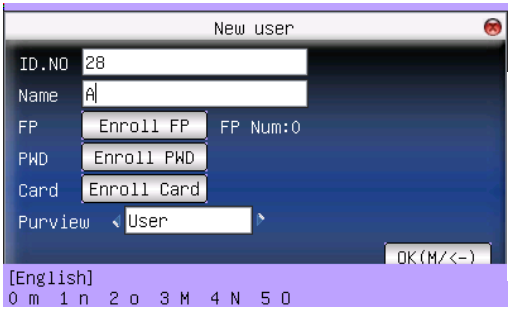
The name of T9 input method is the smart input method; it is famous for highly effective and quickly inputting the character, this equipment fully supports the T9 Chinese, the T9 English, and the symbol input. There are three or four English letters on 0-9 numeric keyboards of the machine, for example the numeric keyboard 1 has the A, B, the C three letters, only input key where this letter locate for the T9 Chinese, Press the algorithm of the program will automatically combine the legitimate Pinyin. Then press the numeric key to choose Pinyin for inputting the Chinese character. The T9 English also comply with the letter arrangement of English word to input, only press key which inputs this letter, the program automatically display this key expressed all letters, press the numeric key to select letter. The T9 input method also may input some marks. May input the name, the short message content through the T9 input method user is able to input the name, the short message content.

T9 Chinese character input (take “Angel” for example):

Press ▶ to enter T9 input. And press ▶ to shift input method of Pinyin, English and Symbol, and then select English.




Input “2” to get the first letter and press “3” to ‘A’.




Use the same method to input the other letters “ngel”.

Press **ESC** to exit

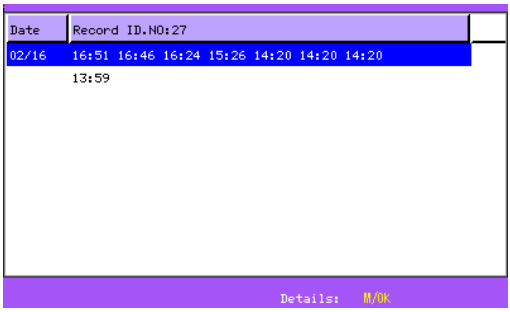
## 10.5 Quick Query of Attendance Record

It is used for common user to query his intraday attendance record to see whether there is something wrong for attendance time and notify administrator the abnormal recorder in time.

**Operation**

Press OK to display the employee's intraday records after successful fingerprint or password verification in 10 minutes.

For example: the employee with User ID of 1 can check his intraday attendance record by pressing OK after fingerprint verification.




☺ **Note**: The picture may be different from your device. The real product prevails.

Press ▲/▼ to read attendance record.

Press **OK** to query detailed information.

Press **ESC** to return to initial interface.

## 10.6 Propaganda Picture Upload Rules

1. The picture format must be JPG. Other formats are not accepted here.

2. The file name of propaganda picture must be ad_0-ad_9, for example ad_1.Jpg.

3. The file name won't be changed after it is uploaded to the device. If it is necessary to change this picture, upload another picture with the same file name to cover it.

4. Every picture cannot be over 20K, or it cannot be uploaded.

5. The picture's resolution is 400 wide and 240 high. It is better not to be more or less than it.

6. The propaganda pictures' count should be 10 at most.

## 10.7 Short Message Management

Our some product provide a function which can send a message to assigned person through public to person way, We only need use the back-end software to set it, then upload it to the fingerprint machine, , as long as the attendance dive start the for public short message will be seen on machine screen, and it will show for ever, for a person short message will not display until the user's fingerprint verification is positive, Thus reduces the work load to manager the human power , greatly enhances the working efficiency.

Send a message to a assigned personal, if a staff' s birthday is on October 20 , we may set back-end software to send out a short message to him " wish your Happy Birthday" on 20 October , upload it in the machine, after this staff the fingerprint verify successfully on that day, this message will display on the screen

Send a message to public, if entire company needs to have a meet on June 19, after we set back-end software to upload the machine, upon this day, the message "holds XX meet in XX room" will continuously display on the screen, asks everybody (certainly such information you are allowed to revise according to your need) to XX participation"

**Short message function setting**: After setting Short message in the Time& Attendance software, then upload it to fingerprint machine, the fingerprint machine support two kind of way to import the short message, which the software connect with fingerprint machine to import it directly, other way by U flash disk.

**Operation Step as follow**:

1. Through Time & Attendance software "external program"-> "short message management" complete to set short message, then connect with the fingerprint

machine and upload it, 2. through Time & Attendance software " external program"-> " short message management" complete to set short message, choose " external program"->"U flash disk manage"-> " export short message"-> "export to U disk", after exporting successfully, plug the U disk into the fingerprint machine, press "Menu" key of the fingerprint machine"-> "Pendri Mng"-> " Upload short message".

**Short message function effect: For public short message will be seen** and it will show for ever after this staff the fingerprint verify successfully, this message will display on the screen.

☺ **Note:** There is total 1024 items of public for personal short message.

## 10.8 Mifare Card ★

In order to meet security market need, our fingerprint biometric verification reader can be embedded EM and Mifare reader module**.**

Using 125MHZ, 13.56 MHz non-contact smart card technology, these fingerprint products provide users with new options for supporting multi-authentication of identity. Combine a non-contact card presentation with a fingerprint biometric. Or, use a personal identification number (PIN) number along with a non-contact card presentation. (See multi-authentication).

The fingerprint products provide three levels of fingerprint verification. During the enrollment process, the LCD prompt will guide the user to place their finger on the reader. The fingerprint template is collected at the unit and immediately transferred to the card. During this enrollment process, the fingerprint template is stored on the card or the fingerprint machine.

During verification at the door, the LCD graphical display will assist the user with instructions about finger placement on the biometric reader.

For more detail see EM, Mifare Card user Guide.

## 10.9 9 Digit Code

When go on enrolling user in the fingerprint machine, along with the standard enrolling code is five digit(its range is 1-65534), if you need that the enrolling code is longer in the actual application, we can provide a customized design that the fingerprint machine own nine digit code.

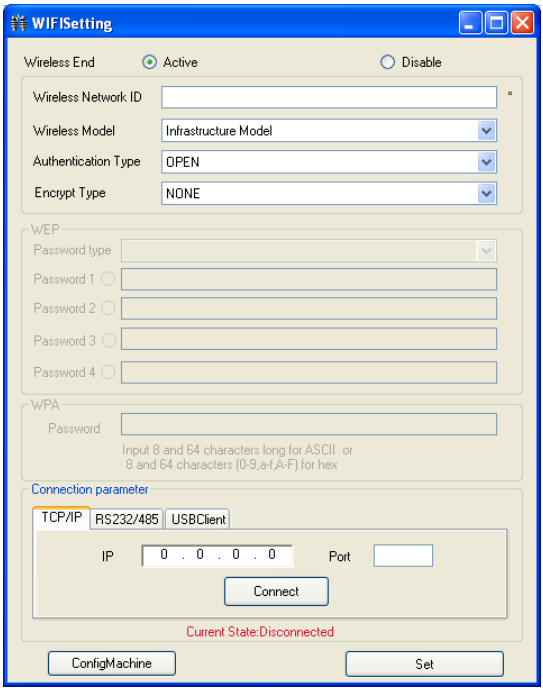
## 10.10 Daylight Saving Time

Some device provides correct and current time in any world time period, country or major city. Accurate adjustments for Daylight Saving Time (or Summer Time) are made according to each location's rules and laws. No matter what time period a country or city is located in, this is your top choice for a clock resource site.

This function can be set in the fingerprint machine option, Press Manu key, enter the **option->date time**. In the XX Month XX Date XX minute move forward an hour, and that in the XX Month XX Date, XX Minute move Back an hour.

The operation refers to this manual 5.2 DLST.

## 10.11 WiFi Software Using Instruction ★




**Step 1:**

**Wireless End** has two options: Active, Disable. If you select the Active item, you can configure the AP (Access Point). If you select the Disable, you can set the connection way of the device, and its configuration of IP address.

**Step 2:**

Full the blank of local **Wireless Network ID** you want to connect with, this blanket must be fulfilled.

☺ **Note:** Must fulfill the blank that is marked with"*"

**Step 3:**

**Wireless Model:** there are two options, Infrastructure Model, and Ad-hoc Model,

click the drop-down box to select the wireless network model, depending on the different topology of network.

The Infrastructure Model will apply to Hub and Spoke wireless network, it include five Authentication Type that are OPEN, SHARED, WEPAUTO, WPAPSK, WPA2PS.

The Ad-hoc Model is used in the peer to peer wireless network. It includes OPEN, SHARED, WEPAUTO, and WPANONE four type of Authentication Type.

**Step 4:**

Click the drop-down box to select the **Authentication Type**.

**Step 5:**

Click drop-down box to select **Encrypt Type**. When the item NONE of encrypt Type is selected, then the password in WEP (Wired equivalent privacy) and WPA (WiFi protested access) item is not permitted to modify it, it is not need to input password too.

**Step 6:**

According to Authentication Type, and Encrypt Type, to input the password, password complies with the criterion set down by the software.

☺ **Note:** there are four group passwords in the WEP column, till the all password have been set up is correct, the current password is valid

**Set Connection Parameter:**

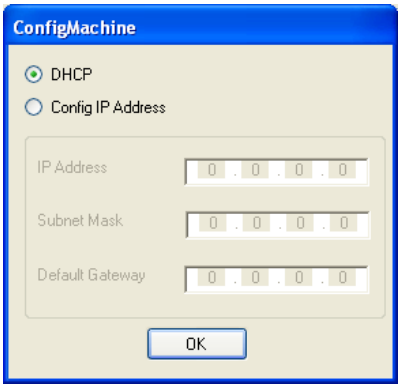
The device fully support two connection ways, one TCP/IP, anther one is RS 232.

If you select TCP/IP, here the IP and Port value must to be assigned; its value is same with one in the communication option of the device. Set the option Ethernet in the device to “Yes”.

If you selectRS232, must configure these parameter, Device ID, COM Port, Baud rate same with one in the communication option of the device.

**Configure the wireless Network IP address:**

(1) Click [ConfigMachine] button, the following menu pops up:




(2) Select **Config IP Address** option, after input IP Address, click the Subnet Mask input box, and the Subnet Mask will automatically display according to IP Address.

(3) Click OK button, save setting and exit this interface.

After all setting for wireless network is completed, single click SET button on the MODEMConfigTool interface, the prompt "in working" will appear on the device. After configure successfully, the corresponding message will inform you, click OK to close the message and restart the machine, so the configuration change take effect.

## 10.12 Photo ID Function

Some devices support Photo ID function, which can display user photo saved in U disk or SD card on the screen as well as User ID, name and so on after verification.

**[Operating Step]**

1) Create a folder named photo in U disk and store user's photo in it.

2) The photo format must be JPG and file name must be User ID. For example, the name of photo of user whose User ID is 154 must be 154.jpg.

3) Insert U disk into USB slot of fingerprint reader, enter U disk management-> upload data-> upload user photo. The operation is the same with that of 6.6 upload user defined picture.

4) Enter U disk management->download->download user photo, and a folder named

photo will be created automatically in U disk. Downloaded user photos are all saved in this folder.

☺ **Note:**

1) The name of user photo must not be over 8 digits.

2) When user is verifying, U disk must be inserted into the device all along.

## 10.13 Backup Battery

The device supports external backup batteries. During removing the battery, be sure to disconnect the external power supply.

### Technical Specifications:

| | | | |
|---|---|---|---|
| Standard charged time | three hours (reference) | Discharged time | more than 4 hours |
| Operate temperature | -20℃～45℃ | Relative humidity | 10％～90％ |
| Recommended storage condition | After fully charged, the battery should be stored under 20±5℃, 65％±20％RH | | |
| Cycle Life | Charged/discharged cycle for more than 300 times, ≧80% the amount of capacity | | |

## 10.14 About the Human Rights Privacy Statement

Dear customer:

First thank you for using Multi-biometric identification product we design and produce. As one of the global famous fingerprint identification core technology provider, we are keep carrying on the development and research, also we believe such action is necessary to: (a) comply with the law or legal process served on Our company; (b) protect and defend the rights or property of Our company (including the enforcement of our agreements); or (c) be governed by related law or legal that involve to the human rights and the privacy in each country.

We are committed to protecting your privacy.

We state as follows:

1. Our civil fingerprints identification equipment merely captures fingerprint features point, but not the fingerprint image, does not involve and retain privacy.

2. The fingerprint features points are not to be recovered the primitive fingerprint image, will not involve the privacy.

3. We took an equipment provider, in no event shall we are liable for any direct or the indirect against legal behavior arising out of use or inability use our equipment.

4. If you have the different dispute for close the human rights or the privacy arising out of using our equipment, please directly contacts with your employer. Our other the police fingerprint equipment or the development kit provide with the function that ability to capture citizen's fingerprint primitive image, as for whether will constitute the right infringement to you, please contact with the local government or the equipment final provider as the equipment original producer, we have not any legal liability for any damage it cause.

☺ **Note**: There are limited rights to privacy and human rights in the Chinese Constitution.

The personal dignity of citizens of the People's Republic of China is inviolable and further, that insult, libel, false accusation or false incrimination directed against

citizens by any means is prohibited, the protection of freedom of the person and the residence .The Constitution provides for the freedom and privacy of correspondence of the citizen.

Finally we hereby stressed that once again, as one kind of advanced identification technology the fingerprint identification will apply to electronic commerce, bank, insurance, law service industry in the future, every year, all world cause from the lack of security password , the humanity are suffering the heavy loss. In under high safe and secure environment the fingerprint identification protect your status from damage in fact.

## 10.15 Environmental Protection

The environmental protection use period marked on our products is the safety period of our products used under the conditions specified by this manual without toxic and harmful substances leaking happened.
The environmental protection use period marked on our products does not include the easy wear and tear components required to be replaced regularly such as the battery etc. The battery's environmental protection use period is 5 years.

**The toxic and harmful substances or element names and the content table**

| Part name | The toxic and harmful substances or elements | | | | | |
|---|---|---|---|---|---|---|
| | Lead (Pb) | Mercury (Hg) | Cadmium (Cd) | Hexavalent Chromium (Cr6 +) | Polybrominated biphenyls (PBB) | Polybrominated diphenyl ethers (PBDE) |
| SMD resistor | × | ○ | ○ | ○ | ○ | ○ |
| SMD capacitor | × | ○ | ○ | ○ | ○ | ○ |
| SMD inductance | × | ○ | ○ | ○ | ○ | ○ |
| SMD diode | × | ○ | ○ | ○ | ○ | ○ |
| ESD components | × | ○ | ○ | ○ | ○ | ○ |
| Buzzer | × | ○ | ○ | ○ | ○ | ○ |
| Adapter | × | ○ | ○ | ○ | ○ | ○ |
| Screw | ○ | ○ | ○ | × | ○ | ○ |

○: Indicate that the content of the toxic and harmful substance contained in all homogeneous materials of this part is in the limitation requirement stipulated in SJ / T 11363-2006.

×: Indicate the content of the toxic and harmful substance contained in at least one homogeneous material of this part is beyond the limitation requirement stipulated in SJ / T 11363-2006.

**Note:** The 80% product has adopted the manufacture with non-toxic and harmless environmental protection materials, the non-toxic and harmless substances or elements instead of the toxic and harmful substances or elements contained can not be achieved because of the current technology and economic constraints.